REMARKS

The Examiner has rejected all of claims 1-27 as being indefinite for the reasons outlined in paragraphs 3 and 4 of the Office Action. Applicant believes the claim amendments overcome this rejection.

Further, the Examiner has rejected all of the claims based on prior art. More specifically, the Examiner has rejected claims 1, 3-8, 12-16, and 20-24 as being anticipated by Douglas (U.S. Patent No. 6,609,193), claim 2 as being obvious over Douglas, and claims 9-11, 17-19, and 25-27 as being obvious over Douglas in view of Joy (U.S. Patent No. 6,507,862).

The applied prior art does not teach or suggest a multithreaded processor or method in which a thread ID is associated with a set of bits which can represent a plurality of instructions, as required by the amended claims.

Douglas is directed to a multi-threaded pipelined instruction decoder in which the thread ID is attached directly to the instruction. See, for example, the paragraph beginning at col. 5, line 1, where it states the following:

> *Associated with an instruction* input into the instruction decode pipeline 400 are an instruction thread-ID and an instruction valid bit. ... The instruction thread-ID and the instruction valid bit flow through the shadow pipeline 402 *in parallel with each instruction* being decoded through the instruction decode pipeline 400. ... In this case, the instruction valid bit and instruction thread-ID are kept *together in parallel with the instruction* in one pipeline as the instruction is decoded through each pipestage of the pipeline. The instruction valid bit and instruction thread-ID may be *encoded with the instruction* in some fashion in order to be kept together during the instruction decoding process.
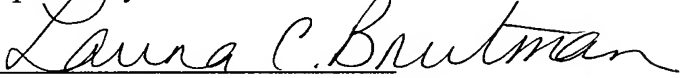
(Emphasis added.)

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Thus it is clear that in Douglas, the thread ID is attached to an individual instruction, as opposed to a set of bits which can represent a plurality of instructions, as required by the claimed invention. Joy was cited for its alleged teaching of a trap handler, which is cited in dependent claims, and fails to make up for the deficiencies of Douglas. Thus, the claims are patentable over the applied references for at least these reasons.

Finally, Applicant has added new claims 28-32, which are directed to the trace unit 400 shown in Fig. 4.

In view of the above, Applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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